

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SALAMAH et al.

Serial No. 09/742,281

Filed: December 22, 2000

For: WAKE REDUCTION STRUCTURE FOR ENHANCING CAVITY FLOW IN GENERATOR
ROTOR ENDWINDINGS

* * * * *



Atty. Ref.: 839-892

Group: 2834

Examiner: Cuevas, P.

13/Response
w/IPS
Cuevas
10-28-02
RECEIVED
TECHNOLOGY CENTER 2800
2002

October 23, 2002

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

REQUEST FOR RECONSIDERATION

Responsive to the Official Action dated July 23, 2002, kindly enter the following remarks.

REMARKS

Reconsideration and allowance in view of the following remarks are respectfully requested.

Claims 1-18 remain pending.

Claims 1-18 were rejected under 35 USC 103(a) as being unpatentable over Staub et al in view of Cole. Applicant respectfully traverses this rejection.

In order to prove obviousness, a challenger must present prior art references which disclose the claimed subject matter of the patent/application in question. If separate prior art references each disclose separate elements of a claim, the challenger must also show some teaching, suggestion, or incentive in the prior art that would have led one of ordinary skill in the art to make the claimed combination. See, e.g., Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297 n.24, 304-05 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986). In determining obviousness, there must be some reason other than hindsight for selectively combining the prior art references to render the claimed invention obvious. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143 (Fed. Cir. 1985).

Staub is cited as providing a generic disclosure of a generator which shows the conventional parts comprising a generator rotor endwinding, as is also illustrated by way of example in applicant's Figures 1 and 2. As noted by the Examiner, however, Staub does not teach or suggest the concept of providing a downstream wall of a spaceblock that has a non-planar contour for reducing generated wake. The Examiner seeks to overcome this deficiency of Staub by citing the secondary reference to Cole which allegedly teaches the modification of Staub to produce the claimed invention. Applicant respectfully disagrees.

The present invention provides at least one spaceblock located between adjacent rotor endwindings, wherein the downstream wall of the space block has a non-planar contour for reducing generated wake. This reduces the drag of these blocks, particularly where the spaceblock extends radially into the annular space as recited in claims 17 and 18.

As acknowledged by the Examiner, Staub in no way teaches or suggests the invention in this regard. The secondary reference to Cole does not fill this gap in the Staub disclosure. Indeed, it is respectfully submitted that in the absence of applicant's disclosure, the skilled artisan would not look to the Cole patent and would not be taught by Cole that any spaceblock of Staub could or should be reconfigured. More particularly, Cole's patent describes a mechanism for varying the camber of an airplane wing. In this regard, Cole's invention deals with the leading edge of an airfoil (only) whereas in contrast the claimed invention specifically limits the contour of the downstream wall of a spaceblock. Furthermore, Cole's invention is not a teaching *per se* of providing a non-planar contour but rather relates to a mechanism for variably adjusting the shape of an airfoil. The skilled artisan in the absence of applicant's disclosure would not consider any aspect of Cole's patent disclosure to be applicable to a generator much less be motivated thereby to reconfigure the trailing or downstream end of a spaceblock. In fact, it would not apparently be possible to incorporate an operative camber varying mechanism as taught by Cole in a spaceblock, because the coils would prevent its operation, nor would there be any reason to do so. Cole does not otherwise teach or suggest that the downstream or trailing edge of the spaceblock of Staub could or should be modified in any respect.

The Examiner bears the burden of establishing the existence of either 1) some objective teaching in the prior art or 2) knowledge generally available to one of ordinary skill in the art which would lead that individual to change the primary reference. In re Jones, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992). Section 103 does not allow the Examiner to engage in picking and choosing from the prior art only to the extent that it will support a holding of obviousness, while excluding parts of the prior art essential to the full appreciation of what the prior art suggests to one of ordinary skill in the art. In re Wesslau, 147 USPQ 391 (CCPA 1975). As the CAFC has said, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems v Montefiore Hospital, 221 USPQ 929, 933 (Fed. Cir. 1984). There must be a suggestion in the art relied upon to use what one reference discloses in or in combination with the disclosure of the other reference or references relied upon by the Examiner. In re Grabiak, 226 USPQ 870, 872 (Fed. Cir. 1986).

While it is recognized that streamlined shapes *per se* are known and have been adopted in a variety of systems and devices, that fact does not *ipso facto* mean that it would be obvious to modify the configuration of the Staub spaceblock to have a wake reducing contour. Applicant's invention on the contrary stems from knowledge and appreciation of the functionality of the spaceblocks (which prevents arbitrary shape modifications), the disposition of the flow field, and the effect the spaceblocks have on the flow field and ultimately on the performance of the generator. The Examiner has cited no evidence whatsoever that anyone before applicant even contemplated configuring a downstream wall of a spaceblock to control wake or any other characteristics of the flow into the cavity downstream thereof. Indeed, as noted above, the secondary reference to Cole is, frankly, irrelevant to the assembly taught by Staub and does not motivate the skilled artisan to modify Staub. Moreover, even if Cole were combined with Staub, the result would be a reconfigured upstream wall, not a contoured downstream wall as claimed. It is therefore respectfully submitted that applicant's concept for achieving increased heat transfer and therefore cooling effectiveness is not anticipated by nor obvious from the prior art of record.

Attached is a Form PTO-1449 listing the enclosed documents.

I hereby certify that each enclosed document listed on the herewith Form PTO-1449 was first cited in the attached PCT/EP Search Report, dated August 29, 2002, issued in a counterpart EP/PCT application not more than three months ago.

See the degree of relevancy and the particular passages cited for each document in that Search Report.

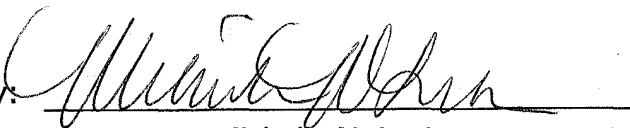
This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully.

Consideration of the foregoing and enclosures plus the return of a copy of the herewith Form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Michelle N. Lester
Reg. No. 32,331

MNL:slj
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100